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ABSTRACT

In order to identify the reading behavior and instructional needs of functionally illiterate adults reading below fourth grade level, 50 adults were identified and diagnosed on the Durrell Analysis of Reading Difficulty test and the Slosson Intelligence Test for Children and Adults. In addition, a questionnaire was administered to Oklahoma City adult basic education teachers to establish areas of concern to the teachers. A tutorial instruction component was conducted with four adults, for the duration of the study, to implement a variety of teaching techniques and to gather data on the study habits of functionally illiterate adults. This document discusses the problem, the treatment of data, analysis of results, conclusions and implications of test results, recommendations for testing, the instructional component, and the classroom and instructional recommendations. Tables of findings, a selected bibliography, and three appendixes (teacher survey, sample lesson plan, and list of materials) are included. (JM)

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Adult Basic Education
Special Project
State Department of Education
Oklahoma City, Oklahoma

A READING PROFILE OF FUNCTIONALLY ILLITERATE ADULTS

by

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ABSTRACT

A Reading Profile of Functionally Illiterate Adults

The purpose of this study was to identify the reading behavior and instructional needs of functionally illiterate adults reading below fourth grade level.

Fifty adults reading below fourth grade level were identified and diagnosed on the Durrell Analysis of Reading Difficulty Test and the Slosson Intelligence Test. A survey questionnaire was administered to Oklahoma City adult basic education teachers to establish areas of concern to the teachers.

A tutorial instruction component was conducted with four adults for the duration of the study for the purpose of implementing a variety of teaching techniques and gathering data on the study habits of functionally illiterate adults.

Intercorrelation coefficients were calculated among all diagnostic test and subtest scores using the Pearson r Product Moment Correlation Coefficient Formula. Significant differences among treatment conditions were determined by t tests.

Recommendations were made relative to testing procedures, instruction, materials, inservice, and certification needs. A case study of functionally illiterate adults' reading behavior based on composite scores was presented.

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A READING PROFILE OF FUNCTIONALLY ILLITERATE ADULTS

Those charged with the task of teaching functionally illiterate adults are faced with a multitude of problems. Their students not only have severe reading disabilities but a myriad of social, financial, and emotional problems as well. These problems have had ample time to become deep-seated and severe. Compulsory education has long since expired leaving the teachers to their own devices to motivate and to teach individuals who are by definition academic failures. They are, in effect, charged with teaching the historically unteachable. It seems logical at the outset that these students and teachers should have access to all the resources and expertise that our educational system can muster. In fact, the opposite is true. Very little research and material are available to the teacher of illiterates. It has been, to a large extent, a matter of modifying pedagogical techniques and materials to the unique characteristics of the illiterate.

Much of the research that is available addresses the emotional and social milieu of the illiterate. Very little research attends to the equally important questions concerning the reading process of the functionally illiterate adults.

It is the purpose of this study to describe the reading process as it relates to the functionally illiterate adult. It is an exploratory study designed to gather and interpret empirical data concerning the reading ability and study behavior of functionally illiterate adults. It attends to questions every teacher and supervisor must ask when dealing with illiterates:

1. What is the level and degree of skill mastery?
2. What are the relationships among these skills?
3. What is the intelligence and potential reading ability?
4. What have other teachers of illiterates observed?
5. How much reading growth can be expected?
6. How large should a reading class be?
7. What kinds of instructional techniques and classroom organization should be employed?
8. What are the concerns of the teachers of illiterates?
9. What kinds of inservice programs for teachers should be provided?
10. What materials and hardware should be used?
11. What should the qualifications of the reading teachers be?

Population

Fifty adults reading below fourth grade reading level were identified. The majority of these individuals were currently enrolled in adult basic education classes in the Oklahoma City area. Seven were selected from an alternative high school for drop-outs in Oklahoma City and seven were identified through the Central State University Reading Clinic. A minimum of 16 years of age was required. Thirty-three males and 17 females were used in the study. The average age of the males was 25.8 and the average age of the females was 31.7 years. No attempt was made to control sex, race, or intelligence. The criteria were that they be 16 or older and be reading below fourth grade level. However, it should be noted that there was not a preponderance of any one race.

Procedures

Each individual was screened on the oral paragraphs of the Durrell Analysis of Reading Difficulty Tests, a subtest measuring performance in comprehension, word recognition and rate. In the event the student failed to reach fourth grade level of mastery in any one or all of the above areas, he was administered the complete Durrell according to his

individual skills. Each individual was then administered the Slosson Intelligence Test (1973) for the identification of an Intelligence Quotient and mental age.

All testing was done on a one to one basis since a diagnostic instrument was being employed and required a constant decision making process by the clinician. Subtests were administered when they were congruent with the reading ability of the student regardless of chronological age or level of education. Each individual received between 1-1/2 - 2 hours of testing by a qualified clinician.

Following is a description of those skills measured by the Durrell Analysis of Reading Difficulty Test (1955):

1. Oral Reading: Measures the ability to recognize words in context, to comprehend and to read fluently orally.

2. Silent Reading: Measures silent sequential comprehension and rate, unaided and aided recall.

3. Hearing Sounds: Measures auditory discrimination and knowledge of initial and final consonants.

4. Phonic Spelling of Words: Measures auditory visual integration.

5. Visual Memory of Words (Primary): Measures visual memory and immediate recall of word form.

6. Visual Memory of Words (Intermediate): Measures Visual-Auditory Integration.

7. Word Recognition List (Flash): Measures sight vocabulary in isolation.

8. Word Recognition List (Analysis): Measures application of sound/symbol relationships. (Ray and Russell, 1975).

The Slosson Intelligence Test was selected because of its appropriateness for both children and adults. Although the SIT must be regarded as a screening test, it does have high correlations with the Stanford-Binet Form L-M. For individuals eighteen and up a correlation coefficient of .97 is established. The SIT does not require any reading on the part of the student thus eliminating reading disability interference. However, the test is highly verbal and would inevitably result in lower scores for those with language deficiencies.

Examiners were highly qualified to administer both the Durrell and the SIT. Great care was exercised in establishing rapport with the students and providing an environment conducive to testing. It was explained to each student that test data would be used in an effort to upgrade materials and approaches in addition to providing his teacher with valuable diagnostic data.

Instructional Component

In the light of the descriptive nature of the study, it was determined that a small group of students be identified to receive intense tutorial instruction for the duration of the study. The primary thrust of this component was to experiment with a variety of techniques and approaches in teaching illiterates to read. It provided a rich environment for the collection of observational data. Attitudes, study habits, attendance patterns and attrition rates were carefully observed and recorded. Pre and post data were obtained from the Durrell Oral Paragraphs and the Slosson Oral Reading Test (1963) but were not the essence of this particular component.

A detailed account of the instructional component is included on Page 31.

Teacher Survey

A survey of 40 questions was constructed and given to all adult basic education teachers in the Oklahoma City locale. The survey gathered information concerning the educational, and experiental qualifications of the teachers. In addition, questions were asked concerning the utility of available materials, special problems of teaching illiterates and personal concerns of the teachers themselves.

The survey provided insight to those problems most pressing for teachers directly involved with teaching functionally illiterate adults. The survey was not restricted to only reading teachers but included a variety of disciplines.

Treatment of Data

Intercorrelation coefficients were calculated among all test and subtest scores using the Pearson r Product Moment Correlation Formula. Significant differences among appropriate treatment conditions were determined by t tests. Additional descriptive information includes the mean, median and standard deviation of scores.

Results

Observed Behavior

Although not statistically demonstrable, the behavior manifested during testing sessions gave valuable insight about the illiterate adults. For many of the students the testing itself was a traumatic experience. Signs of nervousness and anxiety were exhibited. It was found that it was not feasible to set up testing appointments since the students would frequently fail to show up. Spontaneous, impromptu testing sessions proved to be the most fruitful procedure. Students already tested would often make a concerted effort to recruit others for testing.

It was found that most students would readily admit to having a reading problem but in many cases were not cognizant of the severity of the disability or aware of the effort required to remediate it. Many students indicated the need to read for a specific purpose such as a job or passing a particular test. Little interest was shown in learning to read as a means of general information gathering or for aesthetic purposes.

Although it was necessary to establish rapport and attempt to alleviate anxiety, it was found that a business-like attitude had to be maintained. Many of the students had developed sophisticated avoidance techniques and would often attempt to distract the examiner from the task at hand. There was constant concern by students about the quality of responses and students would persistently quiz the examiners as to how they were doing. In almost all cases the students returned to discuss their results in detail.

Oral reading tests were especially difficult. In several instances the students were unable to comprehend the simplest paragraphs. This seemed to be, in general, due to an extraordinary effort to remember. In such cases imagery was extremely vague suggesting almost no identification with story content.

On several occasions requests were made to have a friend or a relative accompany them to the testing session. Clearly the diagnosis itself was a difficult and anxiety producing experience. The information gathered in such a session is invaluable but should not be approached lightly. Care should be exercised in making it a private and comfortable situation. Explanations concerning the nature and purpose of the tests are in order since many of the adults perceive any testing as a pass-fail commentary on their abilities. It was found that upon explanation of the diagnostic nature of the test, anxiety was often lessened. The students in many cases volunteered information concerning their general area of disability with creditable accuracy. Such a source of information should not be overlooked.

Even though the diagnosis was difficult for these students, in only one case out of fifty was there a refusal to continue testing. Many expressed appreciation for the special interest and time afforded them. It would appear that a thorough diagnosis for illiterate adults is both essential and feasible.

Test Data

Table 1 presents a descriptive picture for the entire sample. The sample is subdivided into male and female groups and presents mean and standard deviation summarizations for the chronological age, mental age, intelligence quotient,

oral reading, silent rate, silent comprehension, flashed words, and word analysis skills measures of each.

As can be seen by an inspection of Table 1, there was no significant difference between male and female on CA, MA, or IQ. It is important to note, however, that cognitive ability fell within the mid-seventies for both groups and may suggest limited ability to learn to read.

Three of the five Durrell variables revealed statistically significant mean differences in performance: Silent Reading Rate, Flashed Words, and Word Analysis. All three significant t ratios represented superior performance for female as compared to male subjects. Even though the female subjects performed significantly better in these skills, when comprehension was introduced or the total reading process was measured, no significant differences were obtained.

Table 2 reflects similar results on the Hearing Sounds and Visual Memory Primary subtests; the female subsample performed significantly better on visual memory tasks. No differences were indicated on Hearing Sounds. Both groups, however, performed poorly on this task. The above data would suggest that female illiterates are better able to perform at the automatic, mechanical level of reading but are unable to apply these isolated abilities to the comprehensive reading process any better than the male subjects.

Table 1. Comparisons of Male (N=33) and Female (N=17) ABE Students on CA, MA, IQ, and Five Durrell Analysis of Reading Variables

	VARIABLE							
roup	CA	MA	IQ	Oral Reading (Gr. Eq.)	Silent Reading Rate (Gr. Eq.)	Silent Reading Comprehension (Gr. Eq.)	Flashed Words Raw Score	Word Analysis Raw Score
ale (N=33) Mean	25.08	12.14	76.24	2.91	2.97	3.66	24.73 (4.50)**	31.76 (4.25)**
SD	11.47	1.79	11.10	.85	.98	1.32	11.96	13.00
	t=-1.79	t=.85	t=1.01	t=1.20	t=-3.00*	t=-.66	t=-2.60*	t=-2.34*
emale (N=17) Mean	31.77	11.68	72.88	3.19	3.74	3.91	34.12 (5.50)**	40.18 (5.25)**
SD	14.46	1.90	11.39	.62	.52	1.17	12.43	9.96
otal Mean (N=50)	27.35	11.99	75.08	3.01	3.23	3.74	27.92 (4.75)**	34.62 (4.50)**
SD	12.69	1.80	11.22	.78	.91	1.26	12.68	12.61

*p < .05

$.05 t_{48} = 2.01$

**Grade equivalent of mean raw scores.

Table 2. Comparison of Male (N=27) and Female (N=12) ABE Students on Two Durrell Analysis of Reading Variables: Hearing Sounds and Visual Memory (Primary)

	Hearing Sounds			Visual Memory (P)		
	Male	Female	Total	Male	Female	Total
N	27	12	39	27	12	39
Mean Raw Scores	24.56 (2.5)**	24.33 (2.5)**	24.49 (2.5)**	16.19 (2.5)**	17.67 (3.5)**	16.94 (3.25)**
Standard Deviation	4.26	4.31	4.17	2.09	1.72	2.06
t-ratio	.15			-2.14*		

* $p < .05$

$.05 t_{37} = 2.04$

**Grade equivalents of mean raw scores

Table 3 presents intercorrelation between eight variables that all fifty subjects had in common. Since the Durrell is diagnostic, not all subjects performed all tasks.

Table 3. Intercorrelations between CA, MA, IQ, and Five Durrell Analysis of Reading Difficulty Variables for Fifty ABE Students

Variable		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
CA	(1)								
MA	(2)	.02							
IQ	(3)	.00	.99**						
Oral Reading	(4)	.11	.34*	.33*					
Silent Reading Rate	(5)	.00	.15	.13	.64**				
Silent Reading Comprehension	(6)	-.16	.08	.08	.55**	.68**			
Flashed Words	(7)	.18	.40**	.37**	.44**	.49**	.21		
Word Analysis	(8)	.22	.37**	.34*	.36**	.44**	.22	.92**	

*p < .05 $.05t_{48} = .279$

**p < .01 $.01r_{48} = .361$

If each variable from Table 3 is examined consecutively, relative to its relationship to each other variable, the following pattern is indicated:

1. Chronological age is not correlated with any other variable. The age of the individual does not relate to the reading measures for ABE students in the age range of this sample.

2. Mental age and IQ correlate so strongly with one another that it is necessary to comment on only one, IQ, when interpreting relationships with other variables.

3. IQ correlates low moderate with Oral Reading, Flashed Words and Word Analysis.

4. Oral Reading correlates moderately with the other four measures of the Durrell. This would lend credence to utilizing the oral measures for a screening device.

5. Silent Rate correlates moderately with the other Durrell measures.

6. Silent Comprehension, unlike the other Durrell measures, although correlating with Silent Rate and Oral Reading, does not correlate significantly with Flashed Words and Word Analysis. It should be emphasized that sight word and analytical skills do not seem to be related to Silent Reading Comprehension for this group.

Table 4. Intercorrelations between CA, MA, IQ, and Seven Durrell Analysis of Reading Variables for Thirty-nine AEE Students

Variable		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
CA	(1)										
MA	(2)	-.02									
IQ	(3)	-.03	.99**								
Oral Reading	(4)	.09	.27	.25							
Silent Reading Rate	(5)	-.03	.06	.04	.69**						
Silent Reading Comprehension	(6)	-.21	.17	.17	.64**	.71**					
Flashed Words	(7)	.16	.22	.18	.40**	.44**	.23				
Word Analysis	(8)	.20	.23	.18	.31*	.38*	.23	.90**			
Hearing Sounds	(9)	-.09	.41**	.41**	.28	.06	.22	.03	.08		
Visual Memory(P)	(10)	.16	.02	.00	.34*	.41**	.30	.59**	.68**	-.16	
Mean		27.34	11.67	73.05	2.90#	3.14#	3.71#	24.97	32.46	24.49	16.64
Standard Deviation		12.72	1.54	9.45	.81	.97	1.26	11.87 (4.50)#	12.50 (4.50)#	4.17 (2.50)#	2.06 (2.50)#

*p < .05
**p < .01

Grade equivalents

$.05 r_{39} = .308$
$.01 r_{39} = .398$

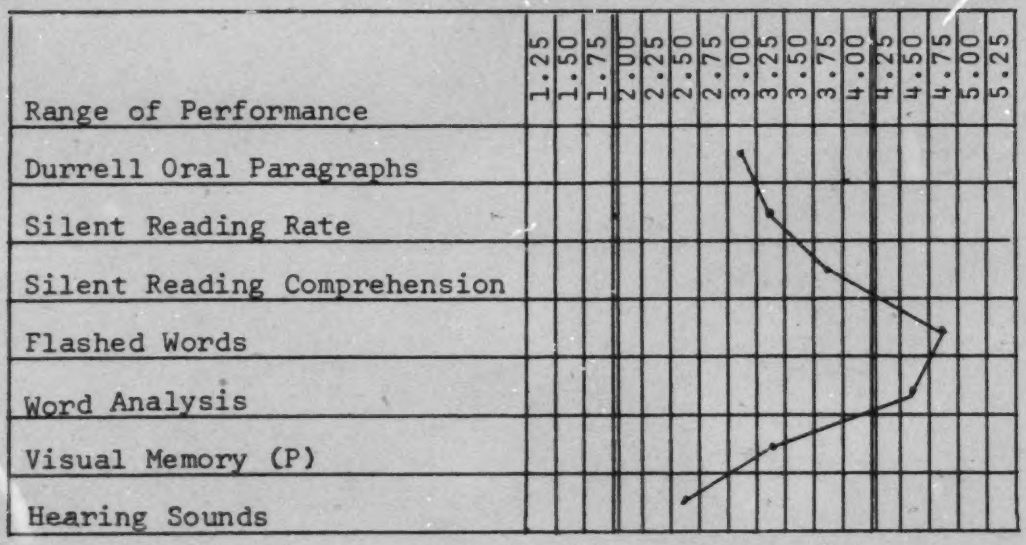
7. Flashed Words and Word Analysis correlate strongly with each other, moderately with other Durrell measures with the exception of Silent Reading Comprehension. This could be a result of a limited sampling of words and the fact that many individuals approached the upper limits of these subtests.

Table 4 adds two variables, Hearing Sounds and Visual Memory Primary, to the intercorrelation matrix represented in Table 3. Thirty-nine subjects were included.

The individuals represented in Table 4 were unable to perform on the intermediate subtests, Phonic Spelling and Visual Memory. Therefore, these individuals, by definition, performed less well on those tasks and were administered the primary counterpart subtests. An examination of Table 4 reveals that the following significant relationships in Table 3 were not maintained in Table 4: Mental age and Oral Reading, IQ and Oral Reading, IQ and Flashed Words, IQ and Word Analysis, Flashed Words and Silent Comprehension. New significant correlation added to established relationships were between: Hearing Sounds and MA and IQ, between Visual Memory and Oral Reading, Silent Reading, Flashed Words and Word Analysis. Hearing Sounds and Visual Memory were not related.

A simple observation of mean scores (Figure 1) permits an analysis of reading performance for the group as a whole, although within this composite any individual pattern may be dissimilar. By plotting all scores from the Durrell relative to the oral reading level of the group, one can obtain a graphic representation of skills as they relate to the reading level. The dark vertical lines represent a tolerance level of one year above and below the current average reading level of the group. Any score approaching the right vertical line may be considered a strength. Any score approaching the left vertical line may be considered a specific weakness.

Figure 1. Mean Grade Equivalence of Durrell Analysis Reading Variables



As can be seen, the average oral reading ability of this sample is 3.0 grade level. This score represents their ability to orally call words in context, to comprehend and to read fluently. The group as a whole read faster silently than orally. This would be expected for their current level of operation.

Even though silent rate is higher than oral rate, it is .50 years below silent comprehension. This would suggest that the group is not reading as quickly as they can comprehend and that the ratio between rate and comprehension needs to be brought more closely in line.

Two definite strengths are apparent: sight words and analytical skills, 4.75 and 4.50 respectively. These abilities however do not seem to directly influence the total reading procedure where they must be applied in an information-gathering process. Visual Memory, although within the acceptable range of performance, bears little relationship to sight word abilities. It may be that the sight word strength is simply a matter of years of exposure to words and has little to do with the capacity for learning these words as reflected in the visual memory score. The same relationship is evident between the ability to hear sounds and the ability to analyze words. It would appear that

even though these individuals have attained an acceptable number of sight words and analytical skills, it has been done in spite of relatively poor visual memory and hearing sounds capacities, and may be more a result of extended exposure than of ability.

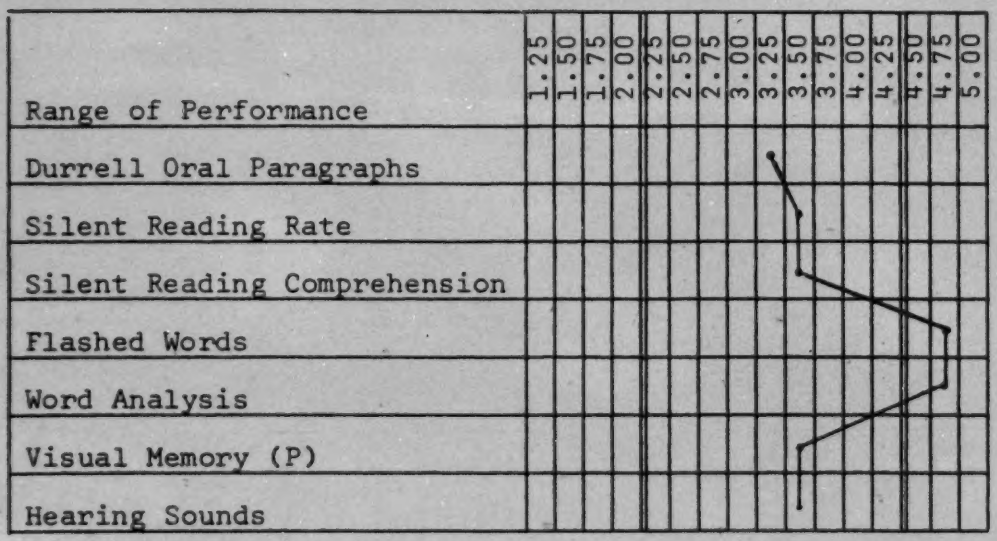
The outstanding weakness reflected in the profile is the inability to apply these skills to an extended reading passage in a fluent and comprehensive fashion.

The scores cluster at the upper limits of elementary level reading. The transition to reading for content has not been made. It might be conjectured that cognitive limitations inhibit this transition or that lack of skill flexibility prevents fluent application to difficult materials.

Figure 2 represents a similar profile based on the median scores thus eliminating those extreme scores which could easily distort the average profile.

Although some difference in total scores are apparent, the relative position of scores are essentially the same. The only notable difference is the congruency between silent reading rate and silent comprehension.

Figure 2. Median Grade Equivalence of Durrell Analysis Reading Variables



Teacher Survey

The results of the teacher survey reveal that of the 19 teachers responding, 37 percent have a bachelor's degree, and 63 percent have attained a master's degree. General teaching experience is relatively high with 89 percent having six years or more of experience. Fifty-three percent have had six years or more of experience teaching adults.

Eighty-four percent of the teachers are currently employed somewhere other than with adult basic education. Sixty-nine percent of the teachers indicated occasional encounters with functionally illiterate adults, 26 percent frequent encounters, and five percent infrequent encounters. The average number of college credits earned in adult education was 4.1 hours. Fifty-six percent of the teachers indicated they would consider attaining a graduate degree in adult education if it were available.

Forty questions concerning three major areas: the materials, the illiterate, and the teacher were administered. Each teacher responded as to whether the item posed "no problem," "some problem," or a "major problem" in dealing with the functionally illiterate adult. (See Appendix A)

In general, materials were not a major problem to the teachers. Only two areas, motivational quality and inappropriate level of difficulty, were suggested as problem areas. Seventy-nine percent of the teachers felt the existing materials contained appropriate skill building activities and were not too condescending for the mature adult. Some concern, 36 percent, was reported relative to an insufficient quantity of materials in the classroom.

The illiterate adults' personal and social dilemmas were of primary concern to the teachers. Fifty percent expressed some problems with a high rate of absenteeism; 44 percent reported absenteeism to be of major importance. Clearly, lack of regular attendance is a distressing problem for adult basic education teachers. Other areas of moderate concern included the emotional and financial problems of the students. Although the majority of teachers felt illiterates had sufficient initiative to learn to read, they felt that a lack of self-confidence, fatigue, unrealistic goals, familial problems, and the tedium of learning skills were interfering factors. Sixty-eight percent of the teachers stated that insufficient student intelligence was "no problem." Thirty-two percent felt it to be "some problem." None of

the teachers reported lack of student intelligence as a "major problem" in teaching illiterates.

The teachers reported satisfaction with administrative support and organization but stated moderate objections about insufficient class time for remediation of reading problems. Fifty percent of the teachers reported that they felt they had inadequate training to remediate reading skill deficiencies, particularly in the areas of diagnosis and teaching approaches. Inservice programs and on-the-job training were selected as the most desirous means of providing such training, 74 and 26 percent respectively.

The classroom behavior and study patterns of the students were characterized as follows: 78 percent of the teachers stated that the students were willing to participate in group learning activities. Sixty-seven percent however found that the illiterate was either unwilling or unable to do independent reading at home. The preferred classroom organization for remediation of reading disabilities was either tutorial sessions (33 percent) or a combination of small group and tutorial instruction (50 percent). Eleven percent preferred classroom instruction and six percent stated a preference for remedial groups.

Conclusions and Implications

Test Results

1. The average age of the functionally illiterate adult in this sample was 27.35 years. The average male was 25.8. The average female was 31.77. Age differences between the males and females were not significant. Chronological age did not correlate with any other measure in the testing battery.

It would appear that little concern need be given to the chronological age of students for testing, teaching or organizational purposes as they relate to reading skills.

2. The mean mental age of the male illiterate was 12.14 years, 11.68 for the female illiterate. Differences between age groups on mental age were not significant.

3. The mean IQ of the male illiterate was 76.24 and 72.88 for the female. There was no significant difference between males and females on the intelligence tests. The relationship between mental age and intelligence was significant, making it necessary to deal with only one of the factors.

Assuming the validity of intelligence testing and ignoring the possibility of verbal and cultural biases, these scores would suggest a slow rate of reading growth and a limited potential reading ability.

4. The correlation between intelligence and reading measures was low moderate. IQ correlated +.33 with oral reading, +.37 with sight words and +.34 with words analysis. All correlations were significant at the .05 or .01 level.

Very little relationship between IQ and silent reading rate and silent reading comprehension was indicated. A significant relationship between IQ and hearing sounds was established on those 39 individuals required to take the primary subtests of the Durrell.

These results suggest that even though overall IQ scores were low, the moderately low relationship between IQ and selected reading measures make the IQ a questionable predictor of reading ability for this group.

5. The mean reading level on the oral paragraphs of the Durrell was 3.01 grade equivalent. The mean oral reading level of the males was 2.91 and 3.19 for the females. There were no significant differences between males and females on the oral reading measures.

Since this subtest measures word recognition, comprehension, and rate in a contextual situation, the results would indicate that the average total reading ability of this sample is at the third grade level. There is little evidence that, on the average, the non-reader or very low

reader is currently represented in the Oklahoma City ABE program. The disabilities, however, are sufficiently severe to warrant a clinical approach to remediation.

6. Silent reading rate correlates moderately with the other measures of reading disability. The female subsample was significantly superior to the male subsample on this task. The profile of mean scores suggests that the group was not reading at a rate commensurate with their comprehension. Attention to increasing silent reading rate is indicated.

7. The mean silent reading comprehension score for the males was 3.66 grade equivalent and 3.91 for the females. There was no significant differences between subsamples on this task. Silent reading comprehension does not correlate significantly with sight words or analytical skills.

This would suggest that caution be exercised in administering placement tests which measure only one of these skills. There is also the possibility of compensatory skills, primarily use of context clues, which could permit a substantial variation in performance depending upon whether the reading was with isolated words or in context.

8. Flashed words and words analysis correlated very highly with one another. Low moderate correlations with IQ were indicated. The relatively small sampling of words may have failed to adequately sample analytical skills.

9. In summary, it appears two clusters resulted from the Durrell data: (1) Silent Reading Rate and Silent Reading Comprehension. (2) Flashed Words, Words Analysis and Visual Memory.

The Hearing Sounds variable does not seem to have anything in common with any other measure but seems moderately correlated to cognitive potential.

The relative independence of these clusters might suggest that the normal pattern of skill mastery for the purpose of reading fluently with comprehension has not been followed. What fluency and comprehension there is seems to be a result of something other than mastery or lack of mastery of isolated skills.

The phenomenon was particularly pronounced with the female subsample in which superior skills in Silent Reading Rate, Flashed Words, Word Analysis, and Visual Memory did not substantially increase their overall reading ability. It might be conjectured that functionally illiterate adults

have developed compensatory skills which permit reading, up to third grade level, but are inadequate for independent reading in more difficult materials. A low correlation between IQ and silent reading comprehension and silent rate does not support cognitive limitations as a possible cause.

Recommendations

Following are recommendations concerning the functionally illiterate adult. These recommendations are based on the data obtained in this study.

Testing

1. Silent reading achievement tests measuring comprehension, rate, and vocabulary are inadequate screening devices for the functionally illiterate adult. Word recognition lists are equally insufficient. Testing instruments, such as informal reading inventories, should be administered in order to measure word recognition, comprehension and reading rate in a contextual situation. The lack of relationship among these skills negates the possibility of using any one skill as an indicator of reading ability.

2. Once identified, the functionally illiterate adult should receive a complete reading diagnosis by a qualified reading specialist. The disabilities are sufficiently

severe to warrant a case study approach to remediation. No single test or test battery should be employed. The selection of tests should be left to the discretion of the specialist in order to accommodate the specific level of development of the reader.

3. In the event the diagnostician and teacher are different people, a written report interpreting the test results and making instructional recommendations should be made available. However, if possible, the diagnostician and teacher should be the same individual to allow for continuity and to maintain rapport.

4. Testing should not be done by appointment or special arrangement but should be an intricate part of the enrollment system.

5. A conference time should be arranged for explaining the test results to each student. Every effort should be made to assist the student in understanding his reading problem and in helping him establish realistic goals and a sound schedule.

6. All testing should be confidential and private. Due to the reading level, most testing instruments will be elementary in content. The data gathered from such tests,

however, are not elementary. This fact should be explained to each student at the outset.

7. Group testing or normative comparisons based on grade placement or chronological age are not satisfactory methods of diagnosis and should not be employed.

8. Due to the immediate needs of the student to read, the diagnosis should be oriented to the identification of skill deficiencies and appropriate remedial techniques. In depth searches for past causative factors would be of questionable profit.

Instructional Component

Introduction

A description of the functionally illiterate adult would not be complete without some attention being given to the manner in which he responds to instruction. Questions regarding materials, instructional techniques, pacing of instruction, student variability or commonality with respect to learning capacity and skills, and the format and composition of the instructional period are concerns of all who undertake to teach anyone anything. These questions seem not to have received adequate attention in the literature which describes programs for the functionally illiterate adult.

Observations of existing programs and materials for adult illiterates reveal certain prevailing conditions which seem questionable. There appears to be an expectation for independent learning on the part of the student. The materials in use are mostly of a workbook type presumed to require a minimum of teacher direction by virtue of their careful programming and graduated difficulty. They are largely self-contained in that the student paces himself and checks his own work. This type of instructional format, coupled

with a student-teacher ratio too disparate for much individualization of instruction, often results in the teacher's involvement being restricted largely to that of classroom and materials management rather than teacher-directed learning. In such situations teachers might make initial decisions about student placement in materials. They could monitor progress, offer encouragement, and even give individual help with workbook lessons. However, little systematic, sequential, teacher-directed skills instruction in either group or individualized settings or other such departures from "adopted" materials can be seen where materials are heavily relied upon as being complete and self-contained sources of all instruction.

The present investigation was based on two premises:

1. Independent, self-directed learning from programmed materials is an inappropriate expectation for functionally illiterate adults. It does not seem logical that individuals with the capability for independent, self-directed learning would reach adulthood, while living in a highly literate culture surrounded by an abundance of printed material, without learning to read. The fact that they did not learn to read suggests that they lack the aptitude to learn to read through independent, self-help materials and do indeed

require some sort of "special" instruction beyond that which such materials might provide.

2. Instructional materials available for use in adult literacy programs do not merit the degree of confidence placed in them. While these materials vary as to quality, none of them adequately meet the skill and motivational needs of the students who use them.

The "Instructional Component" of this descriptive study of the functionally illiterate adult was undertaken to empirically test some ideas for better enabling this population to learn to read to the limit of its potential. While these ideas are not necessarily new, they do not appear to be in wide use in adult literacy programs. They might point the way to more effective planning for future projects.

Instructional Design

Selection and Description of Subjects

Subjects were selected from the pool of Adult Basic Education students who had been screened and diagnosed and who were attending a basic reading class. The instructor of this class was consulted in identifying subjects whose attendance and attitudes seemed advantageous to their potential progress.

An effort was made to include as many subjects as possible consistent with the goal of maximum individualization of instruction. Since the teaching team consisted of three members initially, two Central State University Master's degree candidates and one faculty consultant, eight subjects were requested. However, due to the relatively small pool of available subjects, only four students comprised the instructional group. When a student failed to attend the sessions an attempt was made to replace him up to the mid-point of the twenty-six sessions.

Following are pertinent data for each of the students in the instructional group.

Case No.	Sessions Attended	Sex	Race	Chronological Age	Mental Age	I.Q.	Oral Reading Score
#1	9	Female	Caucasian	27-8	13-4	83	1.25
#2	11	Male	Negro	19-6	13-1	82	3.50
#3	1	Male	Caucasian	36-2	14-5	90	2.75
#4	1	Male	Caucasian	34-1	11-3	70	2.75
#5	21	Male	Caucasian	20-3	14-5	90	3.25
#6	19	Male	Caucasian	44-0	12-5	78	3.50

Instructional Personnel

Directing the instructional component was Dr. Bette H. Roberts, Chairman of the Department of Reading at Central State University.

All lessons were prepared by the director who also observed and/or participated in every instructional period. Graduate student assistants totaled three, two for the first eighteen sessions and one for the last eight sessions. Student assistants were master's degree candidates with majors in Reading at Central State University.

Objectives

The instructional objectives included the following:

Psychological set. To effect an appropriate psychological set toward reading, learning to read, the purposes for reading, and the conditions of learning.

Sight word mastery. To teach "sight words" (so designated by virtue of their frequency of appearance in printed material) where pretesting indicated a lack of mastery.

Decoding. To teach a decoding strategy for unlocking unknown words.

Vocabulary. To increase the receptive vocabulary of the learner.

Sustained reading and application. To provide sustained reading practice in materials of controlled difficulty, and to acquaint the learner with some tools for his future reading growth--tools such as the dictionary, the yellow pages of the telephone directory, the newspaper, and magazines.

Methods and Materials

In general, the methods were tutorial in nature and the materials were adapted published materials of various types. The same general format was followed for each lesson. However, lessons were individually prepared prior to each session and the content was determined by student performance on previous lessons. (See Appendices B and C)

Psychological set. All instructional periods were characterized by a business-like atmosphere in which there was a tacit understanding that teachers would teach and students could and would learn. Mutual respect and rapport among teachers and students were established early in the program. Students were continually encouraged and challenged. Help was provided when needed and praise or negative feedback were given when appropriate. Various types of personal problems and concerns were apparent, and from time to time intruded upon and interfered with learning. However, efforts were made to prevent the instructional sessions becoming counseling sessions. Avoidance behavior was discouraged by either being ignored or attention being diverted to learning tasks. There was considerable discussion during the instructional periods but it was directed toward various aspects of the reading process, never being allowed to degenerate into purely "rap" sessions.

Preceding each lesson was a "preparation" period in which necessary skills were taught or reviewed, vocabulary was developed, background information was provided to enhance understanding or stimulate thinking, and purposes for reading were established. Following reading, comprehension was checked and the content discussed. Problem areas were noted for future lessons. Skill instruction was always followed by opportunities for practice and application. Continuous efforts were made to have learners approach reading with a "seeking" mind which "expects" that it will be rewarded with meaning, discovery, appreciation, or pleasure. Students were also continually reminded that a decoding strategy is a tool for unlocking understanding of the content, not an end in itself. They were encouraged to test their word identifications by asking themselves if it made sense.

Sight word mastery. A pretest of sight word knowledge was administered in the form of The Instant Words (Fry, 1957) a graded list of six hundred words spanning grade level difficulties from grade one through grade six. Unknown words were then taught in the manner described below.

In addition to frequent incidental exposures to "sight words" in easy reading material, a carefully planned program

for teaching these words to the level of automaticity was included. The program had the flexibility for individualization with regard to the particular words to be learned, the number of words in each lesson, and the number and types of learning activities required for mastery.

Step 1 was an audiovisual encounter using a "tutorette" machine. The student was directed to look at the target word which appeared in the upper left-hand corner of a tutorette card. As the card was fed through the machine the student could hear the word pronounced. Immediately afterwards, the student's gaze would shift to a sentence on the card in which the underlined target word was used (along with other known or previously introduced sight words) in a sentence. As he looked at the sentence he would hear it read. He then could play this card as many times as necessary but he must accompany his hearing with simultaneous and appropriate seeing.

Step 2. The student read the target word and the sentence aloud from the card while the tutorette recorded his voice. He could then play back his own recording as frequently as necessary.

Step 3. The tutorette cards were shuffled and the student read each one aloud to his teacher.

Step 4. A work sheet was provided in which the student would match the target word with one of three similar appearing words.

Step 5. The student was tested on reading all the [illegible]in the lesson from a list.

[illegible]6. Another worksheet was provided in which the student selected the appropriate word from three similar appearing words for a blank in a sentence.

Step 7. If the student could read each of his words in isolation from 3 x 5 index cards, he was given the cards for filing in his own "Word Bank".

The student was allowed to exit from the sequence of activities at any point he could demonstrate mastery by reading his words out of context (from a list or from 3 x 5 index cards) on two separate occasions. Steps were allowed to be skipped at the discretion of the instructor. There was continuous review by means of the repetition of previously taught words in all the practice sentences. In addition, prior to the introduction of each new lesson, all the words in the student's "Word Bank" were reviewed and those not retained were selected out for reteaching.

Decoding. A system of word analysis, Glass-Analysis for Decoding Only, (Glass, 1974) was used in which the student was perceptually conditioned to an awareness of letter clusters within whole words. All letter clusters in every word in each lesson was dealt with, but each lesson contained a target cluster which in some words appeared at the beginning, in others it appeared in the middle, and in others it appeared at the end of the word. The decoding lessons had two objectives: to teach specific letter clusters and to teach a strategy for visually organizing words into pronounceable units. The student was asked to respond to three types of questions posed by the teacher: (1) What letters represent a given sound? (2) What sound(s) represent a given letter cluster? (3) What would remain if certain letters were taken off? No more than two target clusters were taught in each lesson and the lessons were no more than twenty minutes in duration. Following teacher-directed word analysis, the student was given a follow-up practice lesson in which he was asked to decode words other than those which had been used to teach the target cluster, but which contained the same cluster. This follow-up decoding practice was done orally to enhance reinforcement.

Vocabulary. Most of the work on vocabulary grew out of the teacher's perceptions of student needs as they were revealed in discussions before, during, and after reading practice. Students were encouraged to ask for word meanings and, in fact, challenged never to allow any word which they did not understand to pass without question. Teachers anticipated word meaning difficulties in the practice material and planned discussions to elaborate meanings for the students. Words with multiple meanings were often singled out for special attention. Concepts were taught or enriched through personal experiences or through examples to which the students could relate. Students were encouraged to form mental pictures of the ideas they encountered in their reading. Number words were found to be a particular source of difficulty both from the standpoint of decoding and of meaning. In general, the thrust of the vocabulary development effort was to enrich and expand the student's knowledge of the world so that he could bring more meaning to printed material.

Sustained reading and application. In the initial stages of the program all sustained reading which students were asked to do was of a "read-along" type. That is, they followed a printed copy of material to which they simultaneously

listened. They were encouraged to listen more than once, if necessary, in preparation for their own independent reading of the same material. They were encouraged to mark on their printed copy any words which they felt unsure about and help was given where needed. Before their reading-listening acitivity, the students were prepared for reading through word identification skill development, vocabulary development, and background information. They were also given purposes for reading. Following their own independent reading of the practice material, the students were given comprehension questions and the material was discussed with the teacher. Gradually, the listening phase of the lesson was decreased until the student was able to "sight read" with some degree of confidence. Help was always available if needed, however. As a student gained confidence and skill in word identification, the element of rate was introduced by having the student read against the clock.

Elementary dictionary use was introduced along with the use of the yellow pages of the telephone directory. The difficulty level of these activities was restricted to that of merely locating information. Newspaper and magazine reading were introduced by assisting students in reading feature articles of high interest in an effort to stimulate their interest in future use of these sources and to increase their confidence in their ability to do so.

Students' Responses to Instruction

Because of the small sample size of the instructional group and because not all of those who participated in the study were present when tests of reading growth could be administered, it was not possible to draw any statistically valid conclusions concerning their progress. Therefore, the only information available for assessing growth were partial test data and teacher observations of the students' responses to the program. These are offered in full recognition of their limitations. The available test data, though they are incomplete and inadequate descriptors of the students' reading and attitude growth, are included in this report. Only Cases #1, #5, and #6 attended with sufficient regularity to permit objective evaluation.

Case #1 was administered the Fry instant word list at the first instructional session. Of 105 words tested the student was able to identify correctly 51. In subsequent lessons it was noted that the student was not always able to identify correctly some words which had been previously "known". However, by the end of nine lessons this student had not only mastered the original 51 words but had added, to the level of mastery, 53 more words from the Fry instant word list. In addition, she had begun to use an effective decoding strategy and had moved a long way toward conquering

her fear of failure. She had dictated and her teacher had transcribed a letter to her brother. This letter served the dual purposes of communication and providing the content of a reading lesson. At the point where it appeared that real progress was being made and a breakthrough to true literacy was possible, this student ceased attending. Family conflicts were cited by the student as the reason for giving up.

Case #5 correctly identified 263 of 300 words spanning difficulty levels one through three on the Fry instant word list. His errors were due to faulty perception of words which were similar in appearance. It was noted that when he read contextual material of a controlled difficulty level he did not miss these words. Gradually he was able to apply the test of meaning to his word perceptions. As his accuracy of word perception increased and as he acquired an efficient decoding strategy, the material difficulty was gradually increased. No post test measure was taken using the Fry instant word list due to the student's cessation of attendance. However, at a point approximately two-thirds through the program other measures were taken which shed some light on his progress up to that point. After 18 sessions this student was able to score at grade level 3.85 on the Slosson Oral Reading Test

(a measure of word identification in isolation) and he showed a one-half year gain on the oral reading subtest of the Durrell Analysis of Reading Difficulty. In addition to these objective measures of growth, this student showed much greater confidence and independence in the use of decoding strategies and in his expectations from reading. The difficulty of his lesson material had been increased from second grade level to fourth grade level. After 21 lessons in which his improvement was obvious to his teachers and tc himself, and in which continued growth seemed probable, this student stopped attending with no explanation and for unknown reasons.

Case #6 was able to demonstrate mastery over the first 500 of the Fry instant words at the beginning of his program. However, he was inordinately slow and had a tendency to overanalyze all words. His rate of language processing reduced his functional use of these words to a level considerably below the fifth grade level otherwise indicated by his initial score on this test. On the Slosson Oral Reading Test his initial score was 3.95 and after 19 lessons it was 6.0, a significant gain. Possibly because of this student's low intellect (I.Q. 78), and his concomitant slow rate of language processing, he was unable to demonstrate any measurable growth

in oral reading as measured by the Durrell Analysis of Reading Difficulty. He was able to show a one-half year gain on the comprehension subtest of the Gates MacGinitie Reading Tests, Survey D, (1964) though other subtest scores were unchanged. This student seemed not to change his reading behavior significantly from beginning to end even though he applied himself diligently and attended regularly for 19 sessions. He was functioning more efficiently and independently at the third grade level of difficulty, which is where he began, than he had functioned initially. He was able, laboriously and with help, to work through fourth to fifth grade material by the end of the program and he had previously been unable to attempt work at these levels. However, he never overcame the frustration occasioned by pressure to work against the clock. This vulnerability to "overloading" precluded his achieving higher scores on tests. It is quite likely that because of the limitations of this student's intellectual functioning and the circumscribed experiential world in which he lives, he has reached the limit of his capacity for measurable reading growth. Despite the lack of demonstrable change, this student frequently expressed optimism and assurance that he was making progress. He enjoyed and appreciated all the sessions, never missing one and always

appearing on time. At the conclusion of the program he requested a letter from the project director describing his reading status.

Certain areas of commonality were observed in this population of students. One salient feature was their generally passive approach to life. This passivity manifested itself in sporadic attendance and lack of perseverance. These students seemed to expect that learning to read was something which someone would do to them rather than something over which they might exercise some control by home study and practice which was suggested for reinforcement. They followed directions and cooperated fully in class activities but not one student ever followed through with any suggestions for home practice between lessons, nor did they ever return materials sent home for this purpose.

One obvious deterrent to the possible benefits to be derived from this sustained instructional effort was a lack of regular or sustained student attendance. Two students attended only one session, not the same session, however. Each seemed extremely anxious, insecure, acutely aware of his disability, and quite pessimistic about his prospects of becoming a reader. Each apparently lacked the perseverance

for overcoming the first hurdle--facing his disability with enough psychic energy left over for grasping his opportunity. Two other students attended approximately one third of the sessions. Only one of these had attendance sustained enough for learning and retention to be observed; the other's attendance was sporadic and he never became involved or committed to the program. Those whose attendance was regular did become involved and did respond favorably to instruction.

The students were surprised and pleased to discover that lessons had been prepared especially for them. The requirement that they reveal their knowledge, or lack of it, to their teacher and fellow students by making oral responses was at first painful. However, when they felt secure in the knowledge that others shared their misery and their teachers cared about them, and when they understood that responding orally contributed to more effective lesson planning and subsequent learning, they more freely asked for help and willingly participated in teacher-student interactions.

Not only were these students deficient in the basic skills of instant word identification and decoding strategies for deriving meaning, they were sorely limited in vocabulary, breadth of experiences, and cognitive skills beyond the literal, concrete level. They possessed a quite limited store of

information which they could tap for comprehending written material. For example, such elementary concepts as the number of feet in a mile and the relationship between altitude and air pressure prohibited their having a frame of reference for understanding the height of Mt. Everest expressed in feet or what it means to fall 18,000 feet from an airplane. Efforts to bring these, and other concepts, alive for them were met with keen interest and appreciation on the part of the students.

Recommendations

Classroom and Instructional Organization

1. A teacher/student ratio of no more than one to four would best accommodate the needs of the students.

2. The classroom should be arranged to permit both group and tutorial activities. Private study carrels with electrical outlets would be beneficial. Appropriate lighting and quiet are essential to teaching reading. Ample bookshelves are necessary for independent reading materials such as newspapers and paperback books.

3. Tutorial instruction should constitute the major approach to teaching. The following procedures are recommended:

   a. An individually planned lesson for each student for each session.

b. A log should be maintained for each student to record the lesson plan, errors, and progress for each student.

c. Special attention should be given to providing progress profiles as a means of encouraging students.

d. Each lesson should provide for perscribed skill development and an opportunity to apply those skills to contextual situations at recommended levels of difficulty.

4. The severity of the reading disabilities and the history of failure prohibits the use of a single text and extended periods of independent seat work.

5. Teacher directed lessons and teacher involvement are essential in order to structure the study procedures. It can not be assumed that because the illiterate is an adult that he can apply adult study skills.

6. Caution should be exercised in keeping the classroom a place of business. The myriad of emotional and familial problems associated with illiterates should not be permitted to take precedence over learning to read within the classroom setting.

7. The high rate of absenteeism and attrition would seem to make it necessary to enforce a minimum attendance

system. Provisions should be made to replace individuals who are sporadic in attendance. To keep slots open for individuals not committed to the program would be a misuse of the teacher and time and would be unfair to others wanting the help. A program for illiterates must attend to quality. Massive remediation of large numbers is an unrealistic approach.

8. More frequent classes of shorter duration are in order. One and one-half hour long classes three to four days per week would provide more instructional intensity and continuity. The tedium of learning skills is not compatible with extended tutorial sessions and a schedule of two sessions per week does not provide for sufficient continuity and retention of learning.

9. A series of short term goals should be established as a motivational technique.

10. Not this research, nor any other known research, can point to a specific approach, activity, or set of materials as being inherently the most efficacious one to use. Clearly the severity and complexity of the adult illiterate's disabilities require tailored instruction congruent with the learning problems of the individual. The success of any

instructional plan depends heavily upon the teacher's knowledge of the reading process and educational psychology. Therefore, no recommendations are offered for a specific methodology or materials. Rather, it is recommended that the following principles be observed:

a. Avoid adopting sets of materials in the expectation that following them in "cook book" fashion will produce literate adults. Instead, select and adapt materials from a wide variety of available sources, to meet specific instructional objectives.

b. Teach toward objectives which stem from a coherent teaching model of the components of the reading process.

c. Pace and reinforce instruction according to individual learners' responses to instruction.

11. There is some evidence to suggest that the functionally illiterate adult must first "unlearn" compensatory skills that have been mastered in lieu of normal skill development.

Teacher Preparation

Functionally illiterate adults present perhaps one of the most difficult segments of our population to teach.

The nature and severity of their learning problems call for a high degree of expertise in a variety of areas. Therefore, it is recommended that certification standards be established to enhance the quality of instruction. It is suggested that a common core requirement dealing with such areas as educational measurement, educational psychology, educational sociology and the unique characteristics of adult learners be established. Specialties, such as reading or mathematics, could then be pursued according to the desires of the teacher. This would provide an instructor with knowledge of the many facets of adult basic education and with expertise in a specific discipline.

Inservice

Until or unless certification of ABE teachers becomes a reality, it is recommended that inservice programs be directed to specific content areas. It is recommended, for example, that a long range inservice program be established specifically for reading teachers. This would allow for in-depth study of the reading process as it relates to the adult. Sufficient time would be available for follow up and application. The practice of general inservice programs necessitates a superficial approach to complex problems. It is unrealistic,

however, to assume that even specific inservice sessions can provide all of the needed expertise. At best they can introduce new ideas and refresh old ones. Any discipline is far too complex to be mastered through inservice alone. It would appear that the most effective approach to inservice would be long range, sequential, and directed to those few immediately concerned. Those areas needing attention in reading, based on the teacher survey and test battery, are reading diagnosis of the illiterate and tutorial procedures.

Recruitment

The nonreader or very low reader was, on the average, not typical of the students tested. This may have been a result of a natural screening process related to the voluntary enrollment procedures of the adult basic education program. Perhaps, long-range exposure to words incidentally teaches limited reading skills to most adults and those unable to learn under such conditions, lack sufficient potential and initiative to take advantage of existing programs. In any event, it would seem prudent to investigate those possibilities before implementing any full-scale recruitment programs. This would allow for the establishment of realistic goals

congruent with the needs of that population.

Counseling Service

Absenteeism and attrition are of major proportions and have a demoralizing effect both on other students and teachers. It was observed that the crucial points seem to be at the outset of the program and, ironically, when the student begins to make substantial progress. Counseling services are most important and should be coordinated with academic progress. The functionally illiterate adult's personal life is intricately involved in his decision to return to school. A special service which attends to that need would provide an avenue for him to express his feelings and obtain advice and give the instructor more freedom to attend to his academic needs.

Those charged with teaching and administering to functionally illiterate adults will be impressed with their desire to learn and to better themselves. It can be a satisfying and rewarding endeavor. It is essential that the chances for their success be maximized. It is hoped that this study contributes to those chances.

BIBLIOGRAPHY

Durrell, D.D. Durrell Analysis of Reading Difficulty. New York: Harcourt, Brace and World, 1955.

Fry, Edward B. The Instant Words. New Jersey: Rutgers University Reading Center, 1957.

Gates, A.I. Gates-MacGinitie Reading Tests. New York: Teachers College Press, 1965.

Glass, G.G. Glass-Analysis of Decoding Only. Garden City New York: Easier to Learn Materials, 1974.

Ray, Darrel D. and Russell, Sheldon N. "Durrell Analysis of Reading Difficulty: An Analysis." (unpublished paper, Oklahoma State University, 1975).

Slosson, Richard L. Slosson Intelligence Test for Children and Adults. New York: Slosson Education Publications, Inc., 1973.

Slosson, Richard L. Slosson Oral Reading Test. New York: Slosson Education Publications, Inc. 1963.

APPENDIX A

Teacher Survey

Age range: (0%) 20-25, (37%) 26-35, (26%) 36-45, (16%) 46-55, (11%) 56-65, (10%) Older

Educational qualifications: (37%) Bachelors, (63%) Masters, (0%) Doctorate, (0%) no degree.

General teaching experience: (11%) 1-5 yrs, (26%) 6-10 yrs, (37%) 11-15 yrs, (26%) over 15 yrs.

Teaching experience with adults: (47%) 1-5 yrs, (37%) 6-10 yrs. (11%) 11-15 yrs, (5%) over 15 yrs.

Current frequency of encounters with adult illiterates: (5%) infrequent, (69%) occasional, (26%) frequent.

Are you currently employed somewhere other than with adult basic education? (84%) yes (16%) no

Would you consider getting a graduate degree in adult education if it were available? (56%) yes (44%) no

What is the approximate number of students on your roll who are reading below 4th grade level?

How many hours of college credit do you presently have in adult education? Average 4 years

What are your current responsibilities in adult basic education?
N/A

Please rate the following statements as to the severity of the problem they pose in the teaching/learning situation of the functionally illiterate adult. A scale of one through three is provided to aid in your assessment.

(1) no problem (2) some problem (3) major problem

1. The materials are uninteresting and fail to motivate the student. (1) 63% (2) 37% (3) 0%

2. The materials lack the appropriate skill building activities. (1) 79% (2) 16% (3) 5%

3. The materials are too difficult for the reading levels of the students. (1) 47% (2) 53% (3) 0%

4. There is an insufficient amount of materials provided for my class. (1) 63% (2) 32% (3) 5%

5. The materials are too condescending for the mature adult. (1) 78% (2) 17% (3) 5%

6. The materials are too exercise oriented. (1) 84% (2) 16% (3) 0%

7. My class is too large to accommodate individualized instruction. (1) 58% (2) 32% (3) 10%

8. A high rate of absenteeism interferes with ordered growth in reading. (1) 6% (2) 50% (3) 44%

9. The reading disabilities are too severe to be remediated in a classroom situation. (1) 42% (2) 53% (3) 5%

10. Illiterate adults lack the initiative to learn to read. (1) 53% (2) 31% (3) 16%

11. Emotional maladjustment interfers with the illiterate adult's learning to read. (1) 47% (2) 42% (3) 11%

12. Financial problems prevent consistent attendance. (1) 10% (2) 74% (3) 16%

13. Illiterate adults set unrealistic goals for themselves. (1) 18% (2) 70% (3) 12%

14. The lack of self-confidence interrupts the learning process. (1) 6% (2) 72% (3) 22%

15. In general, there is insufficient intelligence among illiterates for substantial reading growth. (1) 68% (2) 32% (3) 0%

16. Progress in reading is too slow to keep the student motivated. (1) 39% (2) 55% (3) 6%

17. The students are too tired to study after working all day. (1) 11% (2) 84% (3) 5%

18. Familial problems prevent the student from devoting sufficient time to his studies. (1) 5.5% (2) 89% (3) 5.5%

19. The students find learning to read too tedious. (1) 22% (2) 72% (3) 6%

20. The students are unwilling to participate in group learning activities. (1) 78% (2) 11% (3) 11%

21. The students are unwilling or unable to do independent reading at home. (1) 33% (2) 50% (3) 17%

22. The students are unwilling to admit to having reading difficulties. (1) 28% (2) 72% (3) 0%

23. There is insufficient time to teach the student to read. (1) 28% (2) 55% (3) 17%

24. Administrative details consume much of my instructional time. (1) 100% (2) 0% (3) 0%

25. The students are unable to see the long-range benefits of learning to read. (1) 63% (2) 37% (3) 0%

26. As the instructor, I feel that subject matter content should take precedence over teaching reading. (1) 82% (2) 18% (3) 0

27. I feel uncomfortable in teaching reading. (1) 78% (2) 22% (3) 0%

28. I feel that I have inadequate training to remediate reading skill deficiencies. (1) 50% (2) 39% (3) 11%

29. I do not understand enough about the reading process to diagnose reading problems. (1) 56% (2) 39% (3) 5%

30. I feel a lack of administrative support for the teaching of reading to illiterate adults. (1) 89% (2) 11% (3) 0%

Please check the alternative you feel is most appropriate.

1. I feel that teachers of illiterate adults should receive additional training in reading through
   a. inservice programs 61%
   b. on-the-job training 0%
   c. college course work 31%
   d. none of the above 8%

2. I feel that illiterate adults should receive instruction in a
   a. classroom 19%
   b. remedial group 0%
   c. tutorial session 6%
   d. combination of small group & tutorial instruction 75%

3. I feel that the major reason the illiterate is not learning to read can be attributed to
   a. the illiterate himself 50%
   b. program organization 6%
   c. teacher preparation 0%
   d. other 44%

4. Which of the following do you feel is the weakest component of the program?
   a. materials 0%
   b. diagnostic information 17%
   c. student attendance 83%
   d. class size 0%
   e. instruction 0%

5. Compared to other subjects, how would you rate the difficulty of teaching reading?
   a. more difficult 74%
   b. about the same 26%
   c. easier 0%

6. Do your illiterate students attend class on an average of
   a. 90% or more of the time 11%
   b. 75% - 90% of the time 6%
   c. 50% - 75% of the time 33%
   d. less than 50% of the time 50%

7. Which one of the following kinds of information would be most useful to you in dealing with the illiterate?

a. background information 50%
b. diagnostic information 20%
c. teaching methods information 30%
d. do not need more information 0%

8. How would you rate the chances of the illiterate becoming an independent reader?

a. good 26%
b. fair 63%
c. poor 11%

9. How would you rate your success in teaching illiterate adults to read?

a. good 44%
b. fair 44%
c. poor 12%

10. Please write in any suggestions that you feel would enhance the program for teaching functionally illiterate adults: N/A

APPENDIX B

Sample Lesson Plan

The following is a composite lesson outline representative of those used in the instructional component of Reading Profile of the Illiterate Adult.

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1. Use names of class members (manuscript-written on a chart) to teach the concept of words having parts which can be heard (syllabic units) and which correspond to particular letter clusters.

   (Oral/teacher-directed group activity)

2. Teach by "perceptual conditioning" one or two letter clusters (using approximately twenty minutes). (Glass-Analysis for Decoding Only)

   Direct a practice exercise in applying the letter cluster decoding strategy. ("Follow Through Practice Book")

   (Oral/teacher-directed group activity)

3. Introduce vocabulary from taped story. Talk about the letter clusters in each word and relate them to other words. Discuss word meanings and build background for reading.

   (Oral/teacher-directed group activity)

4. Alternate the following independent activities:

   (a) Students "listen/read" a taped story. They are to listen a second or third time, if necessary, in preparation for partial or complete independent oral or silent reading of the story to a recorder, to an instructor, or to themselves (whichever seems most appropriate for

the student). As the student listens to the tape the second time, he is to check any words on his printed copy which he feels unsure of, and he will receive help with them from the instructor.

Students will answer questions and discuss the story following independent reading.

(b) Using the Tutorette, students will study "instant words" previously identified as troublesome for them. This listening/recording activity is to be followed by a practice work sheet and testing.

5. If time allows the following activities may be selected as the teacher deems appropriate:

(a) Direct students to dictate a "story" into the tape recorder for future lesson material.

(b) Work a lesson from the appropriate level of Barnell-Loft Specific Skills Series - "Using the Context."

(c) Review words in "Word Bank."

APPENDIX C

Materials List

Audio-Visual Aids

Audiotronics Tutorette
- Blank Tutorette Cards
- Programmed Tutorette Cards (Word Parts)

Casette Tape Recorder/Player
- Blank Casette Tapes

Headsets and Listening Station

Instructional Software

Title	Publisher
Barnell Loft Specific Skills Series Getting the Facts Using the Context	Barnell Loft, Ltd.
Breakthrough Series The Winner's Circle	Allyn and Bacon, Inc.
E.D.L. Controlled Reading Study Guide	Educational Development Laboratories
E.D.L. Study Skills Library - Science	Educational Development Laboratories
Fry Instant Word List	Dreier Educational Systems
Glass-Analysis for Decoding Only	Easier to Learn, Inc.
McCall-Crabbs Standard Test Lessons in Reading	Teachers College Press
Reader's Digest Adult Readers	Reader's Digest Services, Inc.
Readwell Essays	Herbert M. Elkins Company
Webster's Everyreader's Classics Wild Animals I Have Known	Webster Division, McGraw-Hill

Periodicals

Title	Publisher
Popular Mechanics	The Hearst Corporation
Ranger Rick's Nature Magazine	The National Wildlife Federation
Daily Oklahoman	Oklahoma Publishing Company
Oklahoma City Times	Oklahoma Publishing Company

Miscellaneous

Telephone Directories

Dictionaries

3 x 5 Index Cards

Teacher-made Practice Materials